AMENDMENT TO THE CLAIMS

1. (Currently Amended)   A speech processing system, comprising:

      an acoustic model;

      a composite language model that supports a vocabulary of words and including a rules-based model portion and a statistical model portion having a plurality of statistical n-gram models trained based on training data, one statistical n-gram model corresponding to each of a plurality of pre-terminals, and wherein words in the vocabulary that are not used to train a specific statistical n-gram model comprise unseen words for the specific statistical n-gram model, the statistical model portion further comprising a backoff model n-gram, separate from the plurality of statistical n-gram models corresponding to the pre-terminals, which, when accessed, is configured to assign a backoff score to a word in the vocabulary, wherein each statistical n-gram model includes a reference to the backoff model portion for all unseen words; and

      a decoder coupled to the acoustic model and the composite language model and configured to map portions of a natural language speech input to the pre-terminals and slots, derived from a schema, based on the acoustic model and the composite language model.

2. (Original)   The speech processing system of claim 1 wherein the decoder is configured to map portions of the natural language speech input to the slots based on the rules-based model portion of the composite language model.

3. (Original)   The speech processing system of claim 1 wherein the decoder is configured to map portions of the natural language speech input to the pre-terminals based on the statistical model portion of the composite language model.

4.   Canceled.

5.   Canceled.

6.   Canceled.

7.   Canceled.

8. (Currently Amended)   The speech processing system of claim ~~7~~ 1 wherein the backoff

model ~~portion comprises:~~

  ~~a uniform distribution n-gram that assigns~~ n-gram _assigns_ a uniform score to every word

   in the vocabulary.

9. (Original)   The speech processing system of claim 1 wherein the rules-based model portion

comprises:

  a context free grammar (CFG).

10. (Original) A method of assigning probabilities to word hypotheses during speech processing,

comprising:

  receiving a word hypothesis;

  accessing a composite language model having a plurality of statistical models and a

   plurality of rules-based models;

  assigning an n-gram probability, with an n-gram model, to the word hypothesis if the

   word hypothesis corresponds to a word seen during training of the n-gram model;

   and

  referring to a separate backoff model for the word hypothesis if the word hypothesis

   corresponds to a word unseen during training of the n-gram model; and

  assigning a backoff probability to each word hypothesis, that corresponds to an unseen

   word, with the backoff model.

11. (Original) The method of claim 10 and further comprising:

mapping the word hypotheses to slots derived from an input schema based on the rules-
based models in the composite language model.

12. (Original) The method of claim 11 and further comprising:
mapping the word hypotheses to pre-terminals derived from the input schema based on
probabilities assigned by the n-gram models and the backoff model in the
composite language model.

13. (Original) The method of claim 12 wherein referring to a separate backoff model comprises:
referring to a uniform distribution n-gram.

14. (Original) The method of claim 13 wherein assigning a backoff probability comprises:
assigning a uniform distribution score to every word in the vocabulary.

15. (Currently Amended)   A composite language model for use in a speech recognition
system, comprising:
aan automatically learned rules-based model portion accessed to recognize words in the
input speech signal and to map portions of an input speech signal to slots derived
from a schema; and
a statistical model portion accessed to map portions of the input speech signal to pre-
terminals derived from the schema.

16. (Original) The composite language model of claim 15 wherein the statistical model portion
comprises:
a plurality of statistical n-gram models, one statistical n-gram model corresponding to
each pre-terminal.

17. (Currently Amended)   The composite language model of claim 15 wherein the rules-

based model portion comprises:

a-an automatically learned context free grammar (CFG), learned from an example base of training data examples.

18. (Original) The composite language model of claim 16 wherein the composite language model supports a vocabulary of words and wherein the statistical n-gram models are trained based on training data, and wherein words in the vocabulary that are not used to train a specific statistical n-gram model comprise unseen words for the specific statistical n-gram model.

19. (Original) The composite language model of claim 18 wherein the statistical model portion of the composite language model further comprises:

a backoff model portion which, when accessed, is configured to assign a backoff score to a word in the vocabulary.

20. (Original) The composite language model of claim 19 wherein each statistical n-gram model includes a reference to the backoff model portion for all unseen words.

21. (Original) The composite language model of claim 20 wherein the backoff model portion comprises:

a uniform distribution n-gram that assigns a uniform score to every word in the vocabulary.